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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,817

09/07/2005

Holger Klapproth

JST-03U1

2401

59538 7590 10/24/2008
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EXAMINER

YU, MELANIE J

ART UNIT

PAPER NUMBER

1641

MAIL DATE

DELIVERY MODE

10/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/521,817	Applicant(s) KLAPPROTH, HOLGER	
	Examiner MELANIE YU	Art Unit 1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 79-82 and 86-91 is/are pending in the application.
- 4a) Of the above claim(s) 83,84 and 86-91 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 79-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group III, claims 79-82, in the reply filed on 14 March 2008 is acknowledged. The traversal is on the ground(s) that Cohen et al. teach a photoreactive crosslinking layer that is activated by irradiation and therefore do not teach a blocking material that includes any photoreactive groups and therefore groups III and IV share a corresponding special technical feature over the prior art and should be examined together. This is not found persuasive because the blocking reagent of Cohen et al. is attached to the sensor surface through the photoreactive group and therefore teaches a blocking reagent that has a photoreactive group the corresponding special technical feature recited by the claims.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-78 and 85 have been canceled. Claims 83 and 84 have been withdrawn as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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2. Claims 79 and 80 are rejected under 35 U.S.C. 102(e) as being anticipated by Cohen et al. (US 2003/0207258) in light of Kamb et al. (US 2003/0027214).

Cohen et al. teach a blocking reagent having at least one photoreactive group (crosslinking reagent has a reactive group that attaches to a blocking material, par. 32; reactive group is photoreactive, pars. 30 and 52; since blocking reagent is attached to crosslinking reagent it is considered to have a photoreactive group, par. 52). Cohen et al. teach a photo-reactive crosslinking agent of SANPAH, but do not specifically teach that the attachment between the substrate and the photoactive agent is covalent. However, Kamb et al. teach a covalent bond formed between a photoreactive SANPAH and a substrate when SANPAH is photoactivated (par. 115).

Cohen et al. teach the blocking reagent being bovine serum albumin or a surfactant (par. 39).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. (US 2003/0207258) in light of Kamb et al. (US 2003/0027214), as applied to claim 80, further in view of Caldwell et al. (US 5,516,703).

Cohen et al. in light of Kamb et al. teach a pluronic surfactant blocking reagent (Cohen, par. 39), but fail to teach the surfactant specifically being PLURONIC F-68.

Caldwell et al. teach modified pluronic surfactants immobilized to a substrate (col. 9, lines 18-47), wherein the pluronic surfactant is Pluronic F-68 (col. 10, lines 21-40), in order to provide a surface with minimum non-specific binding (col. 3, lines 43-51).

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include as the pluronic blocking reagent of Cohen et al. in light of Kamb et al., a surfactant that is Pluronic F-68 as taught by Caldwell et al. because Cohen et al. is generic with respect to the type of Pluronic surfactant that can be incorporated into the assay device and one would be motivated to use a specific type of Pluronic surfactant based on the economics and availability of reagents.

4. Claim 82 rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. (US 2003/0207258) in light of Kamb et al. (US 2003/0027214), as applied to claim 79, further in view of Pomato et al. (US 5,965,106).

Cohen et al. in light of Kamb et al. teach a photoreactive group of SANPAH, but fail to teach the photoreactive group being a benzophenone.

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Pomato et al. teach a photoreactive benzophenone being advantageous over a photoreactive group of arylazide reagents (col. 14, lines 37-40), wherein SANPAH is an arylazide reagent (col. 17, lines 47-61), in order to provide an in vivo delivery system that is easily synthesized and purified and high yields.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include as the photoreactive group of Cohen et al. in light of Kamb et al., benzophenone instead of SANPAH which is an arylazide reagent as taught by Pomato et al., in order to provide a higher crosslinking yield.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELANIE YU whose telephone number is (571)272-2933. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Shibuya can be reached on (571) 272-0806. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melanie Yu/
Patent Examiner, Art Unit 1641